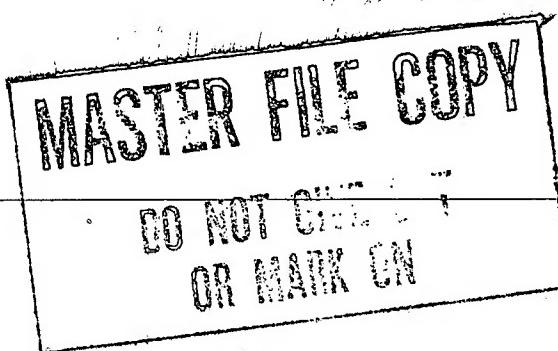




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USSR: Aeroflot Expansion Goals

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An Intelligence Assessment

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GI 83-10254
November 1983

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USSR: Aeroflot Expansion Goals

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An Intelligence Assessment

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This paper was prepared by [redacted]

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[redacted] of the Office of Global Issues with contributions from [redacted] of the Office of Central Reference and [redacted] of the Defense Intelligence Agency. It was coordinated with the Department of State. Comments and queries are welcome and may be directed to the Chief, Geography Division, OGI, [redacted]

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*GI 83-10254
November 1983*



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**USSR: Aeroflot
Expansion Goals**



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Key Judgments

*Information available
as of 20 October 1983
was used in this report.*

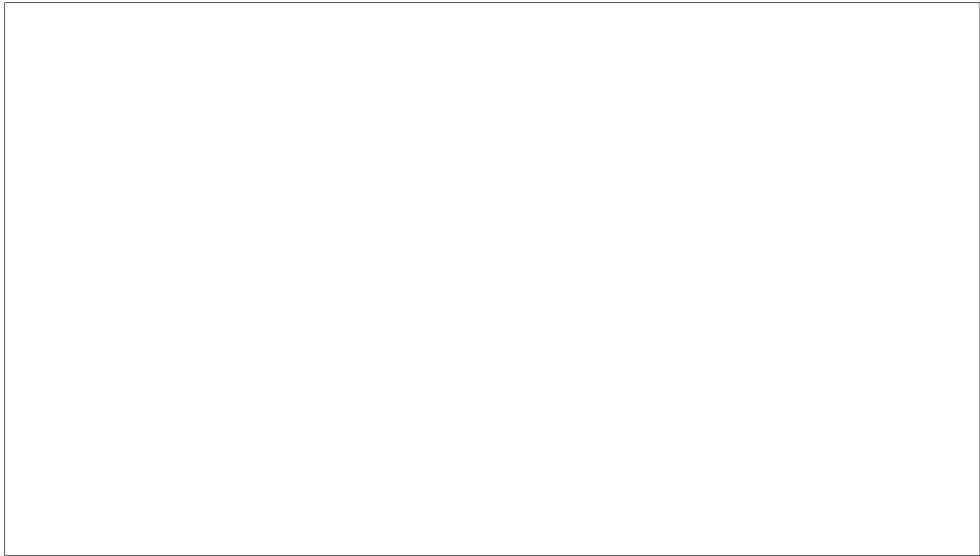
Aeroflot is an important element in the Soviet Union's contacts with the rest of the world. In spite of worldwide concern over the recent Korean Air Lines incident, we believe the USSR will quickly resume its long-term campaign to expand Aeroflot's international network. Aeroflot now services 94 countries (including 82 non-Communist nations)—more than any other international airline. Fifteen years ago it serviced only 44. We believe this expansion has occurred primarily for political reasons because most of Aeroflot's international routes—especially Third World routes—operate at a hard currency loss.

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Despite this rapid expansion, the Soviets have been kept out of some key regions of concern to Moscow. In particular, they have been unable to conclude agreements with most of the Latin American countries. While seeking access to these and other countries, they will be working hard to expand the number and frequency of Aeroflot flights to countries they already service. The most likely forms of expansion would include direct international service from additional Soviet cities, service to more cities in Western Europe, and improved service to some Third World countries like Libya, Nigeria, and Morocco.



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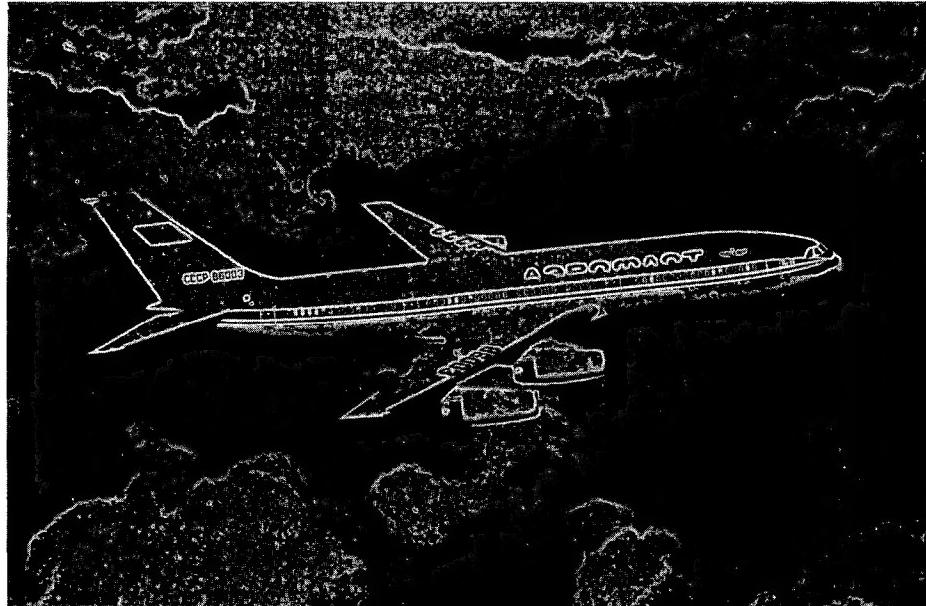


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*IL-86, the flagship of the
Aeroflot fleet*



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USSR: Aeroflot Expansion Goals

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Aeroflot Today

For the Soviets Aeroflot is an important link with the rest of the world. It is the world's largest airline, accounting for a fourth of all passenger kilometers flown worldwide. Published route data show it links more than 3,600 cities and towns within the USSR and operates international service to 94 foreign countries (including 82 non-Communist countries). According to International Civil Aviation Organization (ICAO) figures, the route network, which extends more than 1 million kilometers worldwide, carried 108 million passengers in 1982—mostly Russians and East Europeans. Aeroflot's vast fleet of aircraft and most of its skilled personnel focus almost exclusively on domestic operations, which account for some 97 percent of all passengers carried.

Aeroflot has developed a broad—but thinly served—international network concentrated primarily in Europe. The airline also provides regionally comprehensive service to Africa, the Middle East, and Southeast Asia. Service to Latin America is sparse. Although domestic flights usually operate at or near capacity, US Embassy reports indicate that the international services generally fly with load factors of 50 to 60 percent—comparable with those of Western airlines. In past years the quality of the Soviets' international service has been severely criticized, and in the last decade the Soviets have moved to improve operations—with new equipment, more skilled pilots, and the use of Western catering services—and to upgrade safety to Western standards.

Administratively, Aeroflot is directly subordinate to the USSR's Ministry of Civil Aviation, which was established in 1964. Aeroflot's operations constitute by far the largest portion of the ministry's activities. Aeroflot's prime responsibility is commercial service, both within the Soviet Union and in the international arena. Soviet civil aviation responsibilities outside Aeroflot's charter but still directed by the ministry include general aviation, agricultural aviation and industrial support, pilot training, weather collection, and the operation of airfields.

Aeroflot: Quality of International Service

Before 1970 the airline used antiquated equipment, lacked most passenger amenities common in the West, and had a very poor safety record. In the 1960s while much of the rest of the world was commonly using short-to-medium-range jets Aeroflot relied primarily on turboprops. Few if any meals were served on its Spartan international flights. Most important were the numerous problems relating to safety:

- *Aeroflot pilots—particularly in domestic service—were often observed arriving for duty drunk.*
- *Many pilots with military backgrounds flew civilian aircraft in the same hard style they used with fighters and bombers.*
- *Crashes were frequent. In a 12-month period during 1972/73, for example, at least 10 scheduled airliners crashed, killing more than 500 persons.*

In response to recurring criticisms about the quality and safety of service, Aeroflot officials have placed high priority on fleet modernization, improved services, and better flight safety on international operations. The best trained and most experienced Aeroflot pilots and other personnel have been assigned to international operations. Western catering services and advertising, decor, and ticketing procedures are now used.

As a result of the yearlong spate of accidents in the early 1970s, the Soviets established an Aviation Safety Committee to oversee the effort to improve safety. Day-to-day operations, as well as safety, have benefited from the flow of more modern jet aircraft into the inventory during the 1970s. As a consequence, Aeroflot has acquired a reputation for providing creditably safe, satisfactory service that meets international standards.

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Aircraft Fleet

During the past two decades the Soviet leadership has emphasized the modernization of Aeroflot's fleet. We estimate the fleet now has more than 1,800 jets [redacted]

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[redacted] Most of the jets entered service during the last decade, when deliveries averaged 140 aircraft per year. The inventory includes aircraft with a mix of capabilities for short-range (YAK-40), medium-range (TU-134), medium- to long-range (TU-154), and long-haul (IL-62) operations with passenger-carrying capacities ranging from 30 to about 200. The newest additions include the USSR's first wide body, the 350-passenger IL-86, and the 100-passenger trijet YAK-42—the first aircraft built to conform to Western safety standards. The overwhelming majority of jets are passenger aircraft, but there are about 45 long-haul IL-76 cargo transports that can carry up to 44 tons. Although the pace of modernization has slowed, the conversion to jets is likely to continue throughout the 1980s.

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Aeroflot also has some 1,700 turboprops, which usually are pressed into service only during peak holiday periods. More than half are shorter range AN-24s that carry 50 passengers. The primary cargo-carrying capability among the turboprops consists of 165 AN-12 medium-range transports. In the short-range category, the most significant cargo/passenger capability is provided by 400 AN-26s. Most of the remaining inventory consists of about 200 IL-18 four-engine aircraft that had been the workhorses of the airline before the introduction of the medium- and long-range jets.

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Aeroflot's International Operations

Civil aviation in the USSR celebrated its 60th anniversary in 1983. Aeroflot was established as the Soviet national airline in 1932 from an amalgamation of small regional carriers operating primarily in European USSR. By the early 1950s, the development of the airline's international route network was under way. With Moscow as the hub, flights were initiated to Eastern Europe and then to most West European

¹ The USSR considers data on Aeroflot's inventory a state secret.

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Table 1
Aeroflot Inventory of Significant
High-Performance Aircraft^a

Number of units

Type and Model	NATO Designation	1960	1977	1983
Total		365	3,033	3,485
Jet		191	1,369	1,830
TU-104 (A and B)	Camel	190	136	0
TU-124	Cookpot	1	66	20
TU-134 (Standard-A)	Crusty	0	232	380
TU-154	Careless	0	128	400
IL-62/M	Classic	0	89	140
YAK-40 (Standard-B)	Codling	0	710	780
IL-76	Candid	0	8	45
YAK-42	Clobber	0	0	45
IL-86	Camber	0	0	20
Turboprop		174	1,664	1,655
AN-10	Cat	68	74	0
AN-12	Cub	3	163	165
AN-24	Coke	0	820	890
IL-18	Coot	93	343	200
TU-114	Cleet	10	24	0
AN-26 (and variants)	Curl	0	240	400

^a Aeroflot's fleet also includes about 250 multiengine piston aircraft.

capitals. Building on these services, the USSR began to expand routes and by the late 1960s had begun serving selected countries in the Middle East, Africa, and South Asia.

Inauguration in 1968 of transatlantic service to the United States and Canada was the cornerstone for another decade of rapid Aeroflot expansion: between 1968 and 1977 the number of countries served increased from 44 to 77, and the number of weekly flights more than doubled (see maps at end of text). Most importantly:

- Routes to Sub-Saharan Africa quadrupled, to include a total of 23 countries.
- Service to the Middle East and North Africa increased from 10 to 13 countries.
- The number of South Asian and Southeast Asian countries serviced doubled from five to 10.

Published international schedules show that expansion of Aeroflot's network has continued at a strong pace over the past five years, with service extended to an additional 17 countries. The most important new routes are in the Central American/Caribbean area, where flights were inaugurated to Mexico, Nicaragua, and Jamaica. Elsewhere, the Soviets added new services to such varied locations as Djibouti, Ho Chi Minh City, and Kinshasa. Most routes were added as intermediate stops or short extensions on existing routes.

Despite continuing efforts, Aeroflot has been unable to move into several key regions—most notably Latin America and Oceania. Almost all the countries that

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have denied access to the Soviets have done so because of security concerns. In some cases government spokesmen have publicly voiced fears that Aeroflot would be used for intelligence and military functions:

international flights to non-Communist countries. Load factors on these routes, especially the Paris, Frankfurt, and Vienna services, are high through most of the year. The hard currency receipts from Aeroflot's European operations may to some degree offset losses incurred on other international routes.

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Aeroflot currently serves only two South American countries: Peru and Argentina. There are four weekly flights to Lima and one to Buenos Aires. The airline has no scheduled flights to areas of the southwest Pacific, including Australia and New Zealand. The only Soviet civil flights to these areas are unscheduled and support trade or diplomatic missions; such special-purpose flights may involve the use of either Aeroflot or military aircraft. Other major countries where the Soviets do not have scheduled Aeroflot service include Saudi Arabia, Zimbabwe, South Africa, and the Philippines.

Aeroflot's Competitiveness

Because the Soviets view Aeroflot principally as a political bridge between Moscow and the rest of the world, they have been willing to operate the airline's international service as a vast but only marginally profitable route network. Although available data are sketchy, we believe overall net hard currency earnings are small at best. The most profitable international routes are almost certainly those to Western Europe, which account for about half of Aeroflot's weekly

Pooling arrangements between Aeroflot and West European carriers protect most of Aeroflot's West European operations from direct competition. Under these arrangements total revenues are pooled, expenses paid from the pool, and net revenues divided equally regardless of passenger load. Thus, Aeroflot is assured an equal share of profits, or losses, from Soviet-West European passenger travel even if its fleet handles less than half the passenger traffic. We believe that the Soviets are benefiting from these pooling arrangements because many West Europeans traveling to the USSR use their national airlines rather than Aeroflot. Moreover, Moscow has negotiated pooling arrangements with almost every West European carrier.²

Aeroflot service to Third World countries probably operates at a hard currency loss. We believe that travel between these countries and the Soviet Union is minimal. The bulk of the traffic most likely consists of Soviet official delegations, technical personnel, and military advisers, and Third World passengers traveling to the USSR at Moscow's expense. Some individual routes—particularly those to South Asia—may bring in a small amount of hard currency. Routes to African countries south of the Sahara are probably sizable financial losers for the Soviet Union, given today's airline operating costs and what we know of the load factors on these routes.

Although the Soviets have improved Aeroflot equipment and passenger amenities on their international service, the airline, for the most part, has not been an

² In the early 1970s Moscow pressed Pan American World Airways to accept similar pooling arrangements for US-USSR traffic; Pan Am opted instead for a straight competitive relationship.

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aggressive competitor in the international travel market. Aeroflot's fares are comparable with those of other international airlines and generally adhere to International Air Transport Association (IATA) fare structures. According to press reports, Aeroflot has occasionally undercut IATA-set fares on selected routes. We believe, however, that this undercutting is no more common than that followed by many Western airlines. In any event, should Aeroflot attempt to introduce a broadly based fare reduction campaign, foreign governments with which the Soviets have bilateral agreements would probably counter by restricting Aeroflot landings or reducing fares on their own national airlines.

Bilateral Civil Aviation Agreements

Aeroflot's international route network is based on published bilateral civil aviation agreements with some 100 countries (table 2).³ Most of these agreements provide overflight rights, landing and service privileges, and where appropriate reciprocal rights for the country's national carrier in the Soviet Union. Under normal operating conditions both parties are usually able to exercise the privileges contained in the agreements. Occasionally, participants have placed restrictions on some agreed privileges when the Soviets have attempted to carry out politically sensitive, risky, and potentially high-visibility operations. For example, Turkey, Iran, and Pakistan have been reluctant to grant overflight clearances to Soviet transports during times of crisis even though Aeroflot designations were used on military aircraft involved in the airlift activities.

Historically, when the Soviets have encountered an outright refusal of overflight clearances, they have accepted it and sought alternative routes. Moscow's general respect for the denial of overflight clearances probably stems from sensitivity about its own airspace—as reflected in the KAL episode—as well as a desire not to impede the expansion of legitimate Aeroflot operations.

Military Uses of Aeroflot

Although Aeroflot is a commercial airline, it is generally known to have close and continuing links to the

³ The agreements with the United States, Indonesia, and Chile have been suspended.

military. Aeroflot aircraft, personnel, and facilities around the world have the potential for supporting limited military airlift operations, as well as selected deliveries of military spare parts and medical supplies. Aeroflot's large inventory gives the Soviets a capability to augment military transport aviation (VTA), passenger, and, to a lesser extent, cargo-lift capabilities for a variety of domestic and international missions. A variety of reports indicates that virtually all Aeroflot pilots and flight crews have military reserve status in the Soviet Air Force, though their role in a mobilization is uncertain.

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Aeroflot's primary military role involves its participation in the semiannual rotation of Soviet troops to Eastern Europe.

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Aeroflot AN-12 medium-cargo transports are being used to support Angolan forces. We believe that in the more routine operations, scheduled Aeroflot flights may have delivered small amounts of military-associated spare parts and other supplies to Nicaragua.

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Table 2
Soviet Civil Air Transport Agreements

Eastern Europe	Syria	Ghana
Bulgaria	Turkey	Guinea
Czechoslovakia	Yemen, North	Guinea-Bissau
Germany, East	Yemen, South	Kenya
Germany, West		Liberia
Hungary		Libya
Poland	Afghanistan	Malagasy Republic
Romania	Bangladesh	Mali
Yugoslavia	Burma	Mauritania
Other European	China	Mauritius
Austria	India	Morocco
Belgium	Indonesia ^a	Mozambique
Denmark	Japan	Nigeria
Finland	Kampuchea	Rwanda
France	Laos	Senegal
Greece	Malaysia	Seychelles
Ireland	Mongolia	Sierra Leone
Italy	North Korea	Somalia
Luxembourg	Pakistan	Sudan
Malta	Singapore	Tanzania
Netherlands	Sri Lanka	Togo
Norway	Thailand	Tunisia
Portugal	Vietnam	Uganda
Spain		Zaire
Sweden	Africa	Zambia
Switzerland	Algeria	Western Hemisphere
United Kingdom	Angola	Argentina
Middle East	Benin	Canada
Cyprus	Burundi	Chile ^a
Egypt	Cameroon	Cuba
Iran	Cape Verde Islands	Jamaica
Iraq	Central African Republic	Mexico
Jordan	Chad	Nicaragua
Kuwait	Congo	Peru
Lebanon	Djibouti	United States ^a
	Equatorial Guinea	
	Ethiopia	

^a Suspended.

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Intelligence Uses of Aeroflot25X1
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- Aeroflot aircraft have occasionally ignored assigned flight paths and altitude clearances in the New York-New England area where several sensitive installations are located. In November 1981, for example, a Soviet flight between Washington and Moscow strayed from its prescribed flight path over the United States on both inbound and outbound flights, flying over several Air Force bases and the Groton shipbuilding facility in New England.

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Although it is impossible to detail the full extent of such activities, a few examples serve to illustrate the range of intelligence collection and military-support activities associated with the Soviet airline:

- In the last three years Aeroflot representatives have been publicly expelled from France, Spain, Italy, and Indonesia for alleged espionage activities:
 - In France when the assistant director of Aeroflot, Yuriy Solomonov, was arrested for espionage in June 1982, the press reported he had classified COCOM documents concerning international lists of embargoed materials in his possession.
 - The Spanish Government reported in February 1980 that the director of the Aeroflot office in Madrid was expelled for espionage activities.

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Sanctions Stemming From the KAL Incident

Measures taken against Aeroflot in response to the KAL shootdown were the first major, collective attempt in history to constrain agreed flight and over-flight privileges among countries not officially at war. The United States, most NATO countries (except France, Greece, and Turkey), Switzerland, and Japan instituted a two-week ban on Aeroflot landings (and in some cases overflights) in addition to halting their own national airline flights to the USSR. Ireland adopted a partial boycott involving lesser sanctions. The International Federation of Airline Pilots' Associations (IFALPA) and selected trade unions also placed sanctions on Aeroflot. In the most important move, IFALPA called on its 67 member associations to halt flights to the Soviet Union for 60 days.

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- Aeroflot may occasionally transport undercover military personnel before the outbreak of hostilities. According to press reports, Aeroflot ferried Soviet commandos into Kabul before the invasion of Afghanistan in 1979. The commandos reportedly seized the airport prior to the arrival of airborne forces.

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The combined boycott actions resulted in the cancellation of more than a fourth of Aeroflot's 223 weekly international flights for the two-week period. These actions also cut about half of the 78 scheduled commercial flights to the USSR by non-Communist carriers. Flight connections between Western Europe and the USSR were the most severely affected. The

denial of overflights in Europe also affected all but one of Aeroflot's 13 weekly flights to the Caribbean and Central and South America. The weekly service to Buenos Aires via Dakar was the only flight not diverted from its normal path. The other 12 were rerouted via the north coast of Norway. Other routes affected by the boycott included Aeroflot flights to Canada and Japan and over Panama.

The impact of the sanctions was muted by Moscow's ability to develop alternative routes to its key transport nodes that avoided flying over nations directly involved in the boycott. This was possible because none of Aeroflot's major international transit hubs—Shannon, Cairo, Bombay, Karachi, Havana, and Tripoli—was cut, although Ireland limited the airline to transit/refueling privileges only. We cannot calculate revenue losses because financial data are not published on these services. Even if all affected Aeroflot flights were assumed to operate with a maximum load factor, however, we estimate that gross revenue losses were probably in the neighborhood of only \$5-6 million per week. Normally, such flights probably operate at a 50- to 60-percent load factor. Moreover, only half of these passengers would pay in hard currency. Overall then, the two-week shutdown probably cost Aeroflot in the neighborhood of \$2-3 million.

Soviet priorities for the remainder of the world are difficult to assess. The most likely targets for Aeroflot service will be countries in southern Africa, island nations in the Indian Ocean, and countries in the Southwest Pacific. In southern Africa, Zimbabwe probably holds the most interest for the Soviets, and proposals for Aeroflot basing could well surface in the course of trade talks. In the Indian Ocean, the Maldives is the most likely prospect. The Soviets have long pursued agreements with Australia and New Zealand and will surely renew their efforts in the near future.

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In addition to lining up new countries, the Soviets may want to add more frequent service and stops in countries they already serve, like Nicaragua, where the need for additional service may increase. The most likely forms of expansion would include direct international service from additional Soviet cities, service to more cities in Western Europe, and improved service to some Third World countries like Libya, Nigeria, and Morocco. In the last case, such a move would run counter to current patterns of international service to most of the Third World, where capital cities are being developed as local transport hubs. Overall, the Soviets will demonstrate a flexible approach, seizing opportunities for further expansion of Aeroflot as they arise.

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Aeroflot's Future Directions

Moscow will almost certainly continue to push expansion of Aeroflot's route network to complete its world airlinks. Latin America will remain the focal point of most of these efforts because of the present paucity of Aeroflot service and because the Soviets have political and economic reasons for strengthening their ties to the region. Moscow is most interested in obtaining a bilateral air agreement with Brazil, the key economic and commercial force in South America. Although rebuffed six years ago, the Soviets expressed interest this year in reopening negotiations for an airlink between Moscow and Rio de Janeiro. Elsewhere on the continent, they have sought agreements with Venezuela, Panama, Bolivia, and Ecuador, among others. Although Panama and Colombia have rejected such agreements within the past year, the Soviets will probably attempt a return to the bargaining table in each case.

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